

**AYK Region
Norton Sound/Kotzebue
Salmon Escapement
Report # 43**

1985 Unalakleet River Test Fishing Project

**Compiled By:
Charles Lean**

Alaska Department of Fish and Game

Division of Commercial Fisheries

Nome, Alaska 99762

April 1986

Introduction

The Unalakleet River system empties into Norton Sound approximately 130 miles southeast of Nome. The Unalakleet River flows approximately 130 miles from the Nulato Hills westward to the Bering Sea and drains an area of 1087 square miles. Five major tributaries comprise the system, all of which support spawning salmon.

The town of Unalakleet is situated at the mouth of the Unalakleet River, the most important salmon producing river in Norton Sound. Historically, the people of the area have depended on the salmon runs, both for subsistence needs and as a basis of the cash economy.

Attempts to assess salmon escapement have included aerial surveys, counting towers and side scan sonar. In-season subsistence surveys have been used to assess timing, magnitude and the duration of the chinook salmon return. Hydroacoustic counting techniques have been used unsuccessfully in the three prior years (Lean and Peterson, 1982, 1983 and Lean, 1984). Test fishing with set gill nets in the river has been utilized since 1981 to provide an index of return strength by species (Lean and Peterson, 1981). This report presents test fishing results from the 1985 season.

Methods

Project Deployment

Test fishing began June 7 and ended September 22. The same site has been used since 1981 and is located approximately three miles upstream from the Unalakleet River mouth on the north bank (Figure 1). Chinook salmon subsistence fishermen were interviewed daily from June 26 to July 15.

Test Fishing

The set gillnet test fishing has used similar gear since 1981. The large mesh nets have all been made of multifilament nylon #103 (210/30) cable lay twine, 8 1/4 inch, light green in color with cork lines of 1/2 braided nylon stretched measure with "spongex" floats at 30 inch intervals and lead lines of braided lead core line with a weight of 95 pounds per 100 feet. The medium sized mesh nets have been 5 7/8" stretched measure multifilament nylon #63 (210/18) twine light green in color with similar cork and lead lines. The small mesh gear has been 4 1/2 inches stretched measure multifilament nylon #43 (210/12) twine light green in color with similar cork and lead lines also. All nets were hung at a 2:1 ratio.

An effort has been made over the past four summers to use standard technique in setting the nets. The crew has picked landmarks and tried to set the net in line with a willow bush that serves as the onshore anchor and the down stream point of the island offshore from the net site. The standard nets have been cut to 20 fathoms length which causes the net to cover the northern half of that river channel.

On June 7 and 8, a ten fathom 8/14" net was fished primarily to check the feasibility of placing a set net in the run-off laden river. Since the river was dropping and debris was not a problem it was decided to begin the normal test fishing schedule on June 10.

An twenty fathom 5 7/8" net was fished from June 10 to September 22. One day, usually Sunday, was taken off each week. Test fish days were roughly 24 hours in duration and began at 9:00 a.m.

The gillnets were picked at least twice daily and more often if needed to prevent fish or debris saturation. If conditions required frequent net checks the nets were only fished for a portion of the normal 24 hour schedule.

Weights, lengths and scale samples were taken from all chinook, coho and chum captured. Pink salmon were only counted.

All fish caught in the test net were delivered to Martha Nanouk, a local subsistence fisherman, as per agreement for the use of her traditional set net site. Fish that Mrs.. Nanouk did not want were distributed among other village elders. Some of whom were: John Auliye, Pete Katongan, Ellen Soxie, and Elizabeth Sarren.

The daily catch of each salmon species along with the actual time fished was recorded for each gear type. From the daily catch and time fished a daily catch per unit effort (CPUE) of catch/100 fathom/hours could be calculated. Cumulative CPUE (calculated as cumulative catch/100 fathom/ cumulative hours) was calculated beginning with the first chinook and pink salmon captured and the tenth fish captured for coho and chum salmon, to compensate for fishing time expended prior to the beginning of the salmon runs.

Catch Sampling

Length, size and weight data were collected from all chinook, coho and chum salmon caught in the the test nets. Data were recorded on standard "mark sense" data entry forms. Scales were mounted on gum cards and pressed onto acetate cards. Ageing was done by Dick Nickerson and Helen Hammer by projecting the scale

impressions on a microfische reader. Three and sometimes four scales were taken from each fish to compensate for regenerated and unreadable scales. Catch sampling was done outside the bunk house and the catch distributed to subsistence users soon after.

Subsistence Survey

Three to five subsistence fishermen were interviewed daily from June 23 to July 5 as an additional index of the chinook run. Fishermen were chosen for reliability and willingness to share catch information. Mean daily catches and location were compared daily in an effort to track the movement and magnitude of the chinook run.

Results

Test Fishing

A total of 171 chinook (66.9% male, 33.1% female), 175 coho (51.9% male, 48.1% female), 13 pink and 819 chum (60.6% male, 39.4% female) salmon were captured in the test nets from June 7 to September 22. Based on daily CPUE, peak salmon passage occurred on July 8 for chinook salmon, August 19 for coho salmon, July 18 for pink salmon and July 2 for chum salmon. Daily CPUE data is presented in Appendix Table 4.

Appendix Tables 1-4 show the standardized cumulative CPUE for salmon caught in the Unalakleet River test net. All CPUE values shown in these tables are calculated using the same method. The 1981 catch and CPUE are not comparable to subsequent years because of fishing site conflicts during July and August with the Nanouk family.

Comparative statistics show that chinook salmon catches and CPUE are by far the highest in 1985. The coho and pink salmon test net catches were the lowest since beginning the test fishing project. Chum salmon cumulative CPUE for 1985 indicates a normal catch rate when compared to past years of the project.

Tables 1-8 presents the age, sex and length data collected by project staff in both the commercial and test gear types.

Subsistence Survey

The inseason subsistence surveys conducted during the chinook salmon subsistence fishery show fishing effort peaking in early July. A maximum of 19 nets were observed in the river on June 28 and 29 (Table 9). Fishing effort dropped rapidly as average catches climbed. The decline in fishing effort while fish are

still available is most often observed during large fish runs and probably indicates many subsistence households have met their needs.

Discussion

The 1984 project report presented all the test catches to that time. This report provides the 1985 catch data and catch data taken from similar sized fishing nets since the beginning of the project. Only 5 7/8" nets are now used in the project because there is no longer a need to compare several species abundance within the same year as was required when a sonar counter was in operation. During the past two years the test fishing project has provided a means of comparing instream abundance of an individual salmon species between several years. Since the use of the data has changed the summary tables have been changed for the convenience of the management biologist.

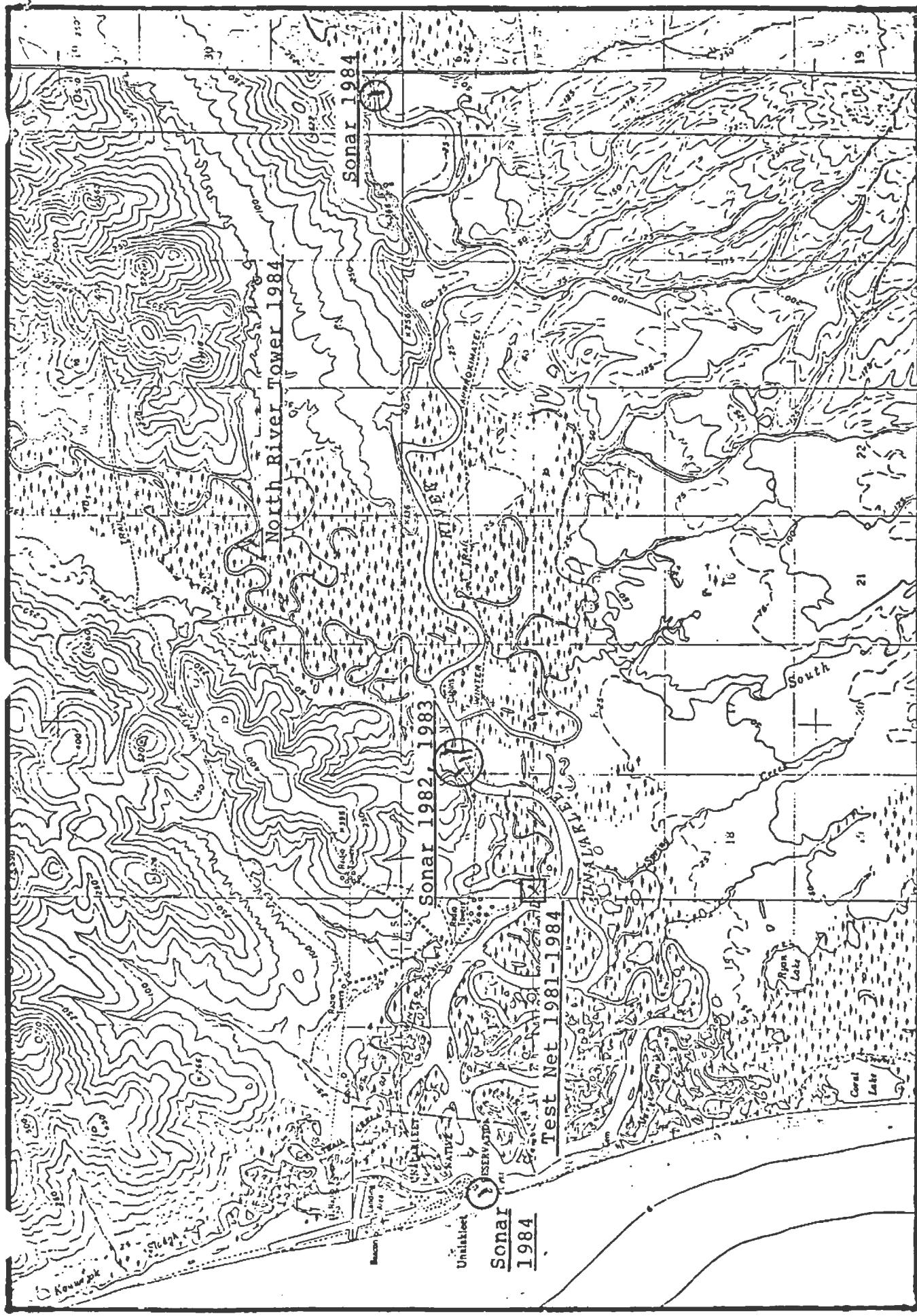


Figure 1. Unalakleet Escapement Project Site Locations.

Table 1. Age, sex and length (mm) of chinook salmon
from the Unalakleet commercial harvest, 1985.

	Age Class				Totals 1/
	4-2	5-2	6-2	7-2	
Males	177	795	4,178	1,287	6,311
Percent	1.4	6.3	33.1	10.2	50.0
Mean Length	549.8	726.0	837.5	828.8	818.2
Std. Error 2/	12.5	22.7	6.0	10.9	96.5
Sample Size	6	28	146	45	253
Females	0	202	4,493	1,489	6,311
Percent	0.0	1.6	35.6	11.8	50.0
Mean Length	0.0	819.7	869.0	887.5	868.8
Std. Error 2/	0.0	22.3	4.4	8.6	58.3
Sample Size	0	7	156	52	257
Sexes Combined	177	977	8,671	2,777	12,622
Percent	1.4	7.9	68.7	22.0	100.0
Std. Error 3/	0.6	1.3	2.2	2.0	
Mean Length	549.8	744.7	853.8	860.2	843.7
Std. Error 2/	12.5	19.6	3.8	7.4	83.4
Sample Size	6	35	302	97	510

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 2. Age, sex and length (mm) of chinook salmon taken with
 149 mm (5 7/8") mesh gillnet in the Unalakleet test
 fishery, 1985.

	Age Class				
	4-2	5-2	6-2	7-2	Total 1/
Males					
Percent	14.9	24.5	26.0	4.5	66.9
Mean Length	578.7	665.8	793.1	809.3	702.5
Std. Error 2/	7.6	17.5	14.5	49.2	127.2
Sample Size	23	33	40	7	111
Females					
Percent	1.3	3.2	22.1	6.5	33.1
Mean Length	637.5	727.0	829.4	861.0	817.9
Std. Error 2/	7.5	31.9	9.9	32.0	85.6
Sample Size	2	5	34	10	57
Sexes Combined					
Percent	16.2	24.7	48.1	11.0	100.0
Std. Error 3/	3.0	3.5	4.0	2.5	
Mean Length	583.4	673.8	809.8	839.7	741.6
Std. Error 2/	7.7	16.0	9.2	27.4	127.0
Sample Size	25	38	74	17	168

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 3. Age, sex and length (mm) of chinook salmon from the Shaktoolik commercial harvest, 1985.

	Age Class				Total 1/
	4-2	5-2	6-2	7-2	
Males	127	324	1,397	127	1,975
Percent	2.4	6.1	26.3	2.4	37.2
Mean Length	580.2	714.1	867.4	894.4	826.7
Std. Error 2/	13.4	34.3	8.4	42.5	113.5
Sample Size	6	15	65	6	103
Females	0	191	2,906	239	3,336
Percent	0.0	3.6	54.7	4.5	62.8
Mean Length	0.0	809.7	877.5	900.0	873.4
Std. Error 2/	0.0	22.0	4.9	11.2	62.2
Sample Size	0	9	135	11	174
Sexes Combined	127	510	4,308	361	5,306
Percent	2.4	9.6	81.1	6.8	100.0
Std. Error 3/	1.0	1.9	2.5	1.6	
Mean Length	580.2	749.9	874.0	897.9	856.0
Std. Error 2/	13.4	24.6	4.3	15.8	87.7
Sample Size	6	24	202	17	277

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 4. Age, sex and size of coho salmon from the Unalakleet commercial harvest, 1985.

	3-1	4-1	5-1	Age Class Total 1/
Males	1,650	7,495	509	9,561
Percent	10.7	48.6	3.3	62.0
Mean Length	576.7	582.5	562.5	581.9
Std. Error 2/	7.4	3.4	12.8	37.0
Sample Size	26	118	8	207
Females	1,018	4,441	308	5,860
Percent	6.6	28.8	2.0	38.0
Mean Length	569.1	574.5	564.0	575.6
Std. Error 2/	6.7	3.7	13.2	29.2
Sample Size	16	70	5	127
Sexes Combined	2,668	11,936	817	15,421
Percent	17.3	77.4	5.3	100.0
Std. Error 3/	2.4	2.7	1.4	
Mean Length	573.8	579.5	563.1	579.5
Std. Error 2/	5.2	2.6	9.0	34.3
Sample Size	42	188	13	334

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 5. Age, sex and length (mm) of coho salmon taken by 149 mm (5 7/8") mesh gillnet in the Unalakleet test fishery, 1985.

	Age Class			
	3-1	4-1	5-1	Total 1/
<hr/>				
Males				
Percent	9.5	39.6	1.8	51.9
Mean Length	590.0	595.0	581.7	594.5
Std. Error 2/	13.0	4.9	11.7	40.7
Sample Size	16	67	3	95
Females				
Percent	7.1	40.2	1.8	48.1
Mean Length	587.5	590.6	575.0	588.3
Std. Error 2/	8.4	3.5	16.1	29.8
Sample Size	12	68	3	88
Sexes Combined				
Percent	16.6	79.8	3.6	100.0
Std. Error 3/	2.9	3.1	1.4	
Mean Length	588.9	592.8	578.3	591.5
Std. Error	8.1	3.0	9.0	35.9
Sample Size	28	135	6	183

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 6. Age, sex and length (mm) of chum salmon from the Unalakleet commercial harvest, by sample period, 1985.

Sample period 1: June 28 to July 20

		Age Class				Totals 1/
		3-1	4-1	5-1	6-1	
Males		0	2,443	3,813	57	6,382
Percent		0.0	21.4	33.4	0.5	55.9
Mean Length			587.0	605.0	615.0	598.0
Std. Error 2/			2.8	2.4	30.0	28.5
Sample Size		0	87	136	2	240
Females		0	1,792	3,231	80	5,034
Percent		0.0	15.7	28.3	0.7	44.7
Mean Length			568.5	591.9	596.0	583.5
Std. Error 2/			3.4	2.5	8.3	28.7
Sample Size		0	64	115	3	189
Sexes Combined		0	4,235	7,044	137	11,416
Percent		0.0	37.1	61.7	1.2	100.0
Std. Error 3/			2.4	2.4	0.5	
Mean Length			579.1	599.0	603.6	591.6
Sample Size		0	151	251	5	429

Sample period 2: July 23 to July 27

		Age Class				Totals 1/
		3-1	4-1	5-1	6-1	
Males		0	1,270	1,485	58	2,825
Percent		0.0	21.9	25.6	1.0	48.7
Mean Length			593.6	608.1	620.8	601.7
Std. Error 2			2.3	2.6	13.4	29.5
Sample Size		0	127	149	6	295
Females		0	1,323	1,630	29	2,976
Percent		0.0	22.8	28.1	0.5	51.3
Mean Length			572.0	581.9	588.3	577.2
Std. Error 2/			1.7	1.9	17.4	23.3
Sample Size		0	132	163	3	311
Sexes Combined		0	2,593	3,115	93	5,801
Percent		0.0	44.7	53.7	1.6	100.0
Std. Error 3/			2.1	2.1	0.5	
Mean Length			582.6	594.4	610.0	589.1
Std. Error 2/			1.6	1.7	11.4	29.2
Sample Size		0	259	312	9	606

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 6. Age, sex and length (mm) of chum salmon from the Unalakleet commercial harvest, by sample period, 1985 (continued).

Sample period 3: July 30 to July 31

	Age Class					
	3-1	4-1	5-1	6-1	7-1	Totals 1/
Males	0	1,879	1,958	103	24	3,964
Percent	0.0	23.8	24.8	1.3	0.3	50.2
Mean Length		587.8	594.7	577.5	580.0	590.0
Std. Error 2/		3.2	3.7	8.3	0.0	29.8
Sample Size	0	74	77	4	1	160
Females	0	2,234	1,602	103	0	3,939
Percent	0.0	28.3	20.3	1.3	0.0	49.9
Mean Length		567.6	583.5	581.3	0.0	574.8
Std. Error 2/		2.5	3.2	2.4	0.0	25.2
Sample Size	0	88	63	4	0	159
Sexes Combined	0	4,121	3,544	205	24	7,894
Percent	0.0	52.2	44.9	2.6	0.3	100.0
Std. Error 3/		2.8	2.8	0.9	0.3	
Mean Length		576.9	589.6	579.4	580.0	582.6
Std. Error 2/		2.1	2.5	4.1	0.0	28.6
Sample Size	0	163	140	8	1	319

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 7. Age, sex and length (mm) of chum salmon taken in the Unalakleet commercial fishery, all periods combined, 1985.

	Age Class					Total 1/
	3-1	4-1	5-1	6-1	7-1	
Males	0	5,592	7,256	218	24	13,090
Percent	0.0	22.3	28.9	0.9	0.1	52.1
Mean Length 4/		590.1	604.1	605.4	580.0	597.8
Std. Error 2/		1.6	1.6	9.8	0.0	29.5
Sample Size	0	288	362	12	1	695
Females	0	5,349	6,463	212	0	12,024
Percent	0.0	21.3	25.7	0.8	0.0	47.9
Mean Length 4/		569.8	585.6	587.8	0.0	578.4
Std. Error		1.4	1.4	5.4	0.0	25.6
Sample Size	0	284	341	10	0	659
Sexes Combined	0	10,949	13,703	435	24	25,111
Percent	0.0	43.6	54.6	1.7	0.1	100.0
Std. Error 3/		1.4	1.4	0.4	0.1	
Mean Length 4/		580.1	595.1	597.4	580.0	588.4
Std. Error 2/		1.1	1.1	6.1	0.0	29.3
Sample Size	0	573	703	22	1	1,354

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

4/ Mean length is average of samples collected, i.e. not weighted by sample period of age composition.

Table 8. Age, sex and length (mm) of chum salmon caught with 149 mm (5 7/8") mesh gillnet in the Unalakleet test fishery, by sample period, 1985.

Sample period 1: June 23 to July 9

	Age Class				
	3-1	4-1	5-1	6-1	Totals 1/
Males					
Percent	0.0	22.5	43.3	0.9	66.7
Mean Length 2/		594.3	611.7	618.8	605.9
Std. Error		2.5	1.8	12.1	26.0
Sample Size	0	95	183	4	287
Females					
Percent	0.0	9.0	23.4	0.9	33.3
Mean Length		581.9	590.9	591.3	587.9
Std. Error 2/		3.2	2.5	15.3	23.9
Sample Size	0	38	99	4	143
Sexes Combined					
Percent	0.0	31.4	66.7	1.9	100.0
Std. Error 3/		2.3	2.3	0.7	
Mean Length		590.7	604.4	605.0	599.9
Std. Error 2/		2.1	1.6	10.4	27.0
Sample Size	0	123	282	8	430

Sample period 2: July 10 to September 7

	Age Class				
	3-1	4-1	5-1	6-1	Totals 1/
Males					
Percent	0.5	20.2	32.1	1.1	53.9
Mean Length	592.5	593.3	610.5	602.5	603.7
Std. Error 2/	2.5	3.1	2.7	10.9	29.5
Sample Size	2	76	121	4	204
Females					
Percent	0.3	17.2	27.9	0.8	46.2
Mean Length	590.0	574.2	594.9	588.3	587.2
Std. Error 2/	0.0	2.4	2.0	1.7	22.2
Sample Size	1	65	105	3	177
Sexes Combined					
Percent	0.8	37.4	59.9	1.9	100.0
Std. Error 3/	0.5	2.5	2.5	0.7	
Mean Length	591.7	594.5	603.2	596.4	594.0
Std. Error 2/	1.7	2.1	1.8	6.5	27.6
Sample Size	3	141	266	7	381

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

Table 8. Age, sex and length (mm) of chum salmon caught with 149 mm (5 7/8") gillnet in the Unalakleet test fishery, 1985, all sample periods combined (continued).

	Age Class				Total 1/
	3-1	4-1	5-1	6-1	
<hr/>					
Males					
Percent	0.3	21.4	38.0	1.0	60.6
Mean Length 4/	592.5	593.8	611.1	610.6	605.0
Std. Error 2/	2.5	2.0	1.5	8.2	27.5
Sample Size	2	171	304	8	491
Females					
Percent	0.1	12.9	25.5	0.9	39.4
Mean Length 4/	590.0	577.1	592.9	590.0	587.5
Std. Error 2/	0.0	1.9	1.6	8.2	22.9
Sample Size	1	103	204	7	320
Sexes Combined					
Percent	0.4	34.3	63.5	1.9	100.0
Std. Error 3/	0.2	1.7	1.7	0.5	
Mean Length 4/	591.7	587.5	603.8	601.0	598.1
Std. Error 2/	1.7	1.5	1.2	6.2	27.2
Sample Size	3	274	508	15	811

1/ Totals include fish not aged.

2/ Standard Error of average length.

3/ Standard Error of age class percent.

4/ Mean length is average of samples collected, i.e. not weighted by sample period or age composition.

Table 9. Unalakleet River subsistence effort 1982-1985.

Date	1982			1983			1984			1985		
	# fish-ermen	# king	daily mean	# fish-ermen	# king	daily mean	# fish-ermen	# king	daily mean	# fish-ermen	# king	daily mean
6/08				4	3	0.8						
6/09				4	1	0.2						
6/10				4	7	1.8						
6/11				4	2	0.5						
6/12				4	2	0.5						
6/13				4	0	0.0						
6/14	2	4	2.0	4	1	0.2						
6/15	3	0	0.0	4	23	5.8						
6/16	4	5	1.2	4	37	9.2						
6/17	3	5	1.7	4	25	6.2						
6/18	5	9	1.8	4	29	7.2						
9/19	6	9	1.5	4	29	7.2						
6/20	6	10	1.7	4	17	4.2						
6/21	5	10	2.0	4	11	2.8						
6/22	4	3	.8	4	21	5.2						
6/23	4	7	1.8	4	24	6.0	3	1	0.3			
6/24	4	6	1.5	4	25	6.2	4	5	1.2			
6/25	4	13	3.2	3	6	2.0	5	18	3.6			
6/26	4	2	0.5	3	14	4.7	5	13	2.6	4	1	0.2
6/27	3	3	1.0	3	15	5.0	4	20	5.0	4	2	0.5
6/28	3	9	3.0	4	14	3.5	5	66	13.2	4	2	0.5
6/29	3	8	2.7	4	10	2.5	5	22	4.4	4	9	2.2
6/30	4	7	1.8	4	6	1.5	5	25	5.0	5	78	15.6
7/01	5	16	3.2				4	33	8.2	3	37	12.3
7/02	6	41	6.8				3	41	13.7	3	19	6.3
7/03	5	73	14.6				2	16	8.0	3	19	6.3
7/04	4	40	10.0				2	9	4.5	3	20	6.7
7/05	3	24	8.0				2	16	8.0	4	31	7.8
7/06	3	27	9.0							4	5	1.2
7/07	4	21	5.2							3	14	4.7
7/08	3	3	1.0							3	43	14.3
7/09	3	16	5.3							4	44	11.0
7/10	3	2	0.7							3	12	4.0
7/11	4	10	2.5							3	7	2.3
7/12	2	2	1.0							3	7	2.3
7/13	2	0	0.0							3	9	3.0
7/14										4	3	0.8
7/15										3	11	3.7

Appendix Table 1. Unalakleet test net catches of chinook salmon
in 5 7/8" gear, 1982 - 1985.

chinook salmon catch, 1982 counts begin the day the tenth salmon was caught						chinook salmon catch, 1983 counts begin the day the tenth salmon was caught					
Date	Hours	Catch	Cum. CPUE	Cum. CPUE	CP(C)	Hours	Catch	Cum. CPUE	Cum. CPUE	CP(C)	
5/26		0.00	0.00	0.000			0.00	0.00	0.000		
5/27		0.00	0.00	0.000			0.00	0.00	0.000		
5/28		0.00	0.00	0.000			0.00	0.00	0.000		
5/29		0.00	0.00	0.000			0.00	0.00	0.000		
5/30		0.00	0.00	0.000			0.00	0.00	0.000		
6/01		0.00	0.00	0.000			0.00	0.00	0.000		
6/02		0.00	0.00	0.000			0.00	0.00	0.000		
6/03		0.00	0.00	0.000			0.00	0.00	0.000		
6/04		0.00	0.00	0.000			0.00	0.00	0.000		
6/05		0.00	0.00	0.000			0.00	0.00	0.000		
6/06		0.00	0.00	0.000			0.00	0.00	0.000		
6/07		0.00	0.00	0.000		12.6	1	0.40	0.40	0.056	
6/08		0.00	0.00	0.000		12.7	1	0.39	0.40	0.111	
9/09		0.00	0.00	0.000			0.00	0.40	0.111		
6/10		0.00	0.00	0.000		11.4	0	0.00	0.27	0.111	
6/11		0.00	0.00	0.000			0.00	0.27	0.111		
6/12		0.00	0.00	0.000		11.3	2	0.88	0.42	0.222	
6/13		0.00	0.00	0.000			0.00	0.42	0.222		
6/14		0.00	0.00	0.000		11.9	2	0.84	0.50	0.333	
6/15		0.00	0.00	0.000		11.6	1	0.43	0.49	0.389	
6/16	24.0	1	0.21	0.21	0.045			0.00	0.49	0.389	
6/17		0.00	0.21	0.045		11.6	2	0.86	0.54	0.500	
6/18	24.0	5	1.04	0.63	0.273			0.00	0.54	0.500	
6/19		0.00	0.63	0.273		11.8	0	0.00	0.47	0.500	
6/20	12.0	4	1.67	0.83	0.455			0.00	0.47	0.500	
6/21		0.00	0.83	0.455		11.8	1	0.42	0.47	0.556	
6/22	12.0	2	0.83	0.83	0.545			0.43	0.46	0.611	
6/23	12.0	2	0.83	0.83	0.636			0.00	0.46	0.611	
6/24		0.00	0.83	0.636		11.6	0	0.00	0.42	0.611	
6/25	11.9	1	0.42	0.78	0.682			0.00	0.42	0.611	
6/26		0.00	0.78	0.682		11.9	2	0.84	0.46	0.722	
6/27	12.1	2	0.83	0.79	0.773			0.00	0.46	0.722	
6/28		0.00	0.79	0.773		11.8	1	0.42	0.46	0.778	
6/29	12.2	1	0.41	0.75	0.818			0.87	0.48	0.889	
6/30	13.5	2	0.74	0.75	0.909			0.00	0.48	0.889	
7/01		0.00	0.75	0.909		11.9	1	0.42	0.48	0.944	
7/02	12.0	2	0.83	0.75	1.000			0.00	0.48	0.944	
7/03		0.00	0.75	1.000		11.9	1	0.42	0.48	1.000	
7/04	13.5	0	0.00	0.69	1.000			0.00	0.48	1.000	
7/05		0.00	0.69	1.000		11.9	0	0.00	0.45	1.000	
7/06	12.0	0	0.00	0.64	1.000			0.00	0.42	1.000	
7/07		0.00	0.64	1.000			0.00	0.42	1.000		
7/08		0.00	0.64	1.000			0.00	0.42	1.000		
7/09		0.00	0.64	1.000			0.00	0.42	1.000		
7/10		0.00	0.64	1.000			0.00	0.42	1.000		
7/11		0.00	0.64	1.000			0.00	0.42	1.000		
7/12		0.00	0.64	1.000			0.00	0.42	1.000		
7/13		0.00	0.64	1.000			0.00	0.42	1.000		
7/14		0.00	0.64	1.000			0.00	0.42	1.000		
7/15		0.00	0.64	1.000			0.00	0.42	1.000		
7/16		0.00	0.64	1.000			0.00	0.42	1.000		
7/17		0.00	0.64	1.000			0.00	0.42	1.000		
7/18		0.00	0.64	1.000			0.00	0.42	1.000		
7/19		0.00	0.64	1.000			0.00	0.42	1.000		
7/20		0.00	0.64	1.000			0.00	0.42	1.000		
7/21		0.00	0.64	1.000			0.00	0.42	1.000		
7/22		0.00	0.64	1.000			0.00	0.42	1.000		
7/23		0.00	0.64	1.000			0.00	0.42	1.000		
7/24		0.00	0.64	1.000			0.00	0.42	1.000		
7/25		0.00	0.64	1.000			0.00	0.42	1.000		

171.2 22.0 7.8
Mean day of catch 6/23

212.9 18.0 7.6
Mean day of catch 6/20

Appendix Table 1. Unalakleet test net catches of chinook salmon
in 5 7/8" gear, 1982-1985 (continued).

chinook salmon catch, 1984
counts begin the day the
tenth salmon was caught

chinook salmon catch, 1985
counts begin the day the
tenth salmon was caught

Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)
5/26			0.00	0.00	0.000			0.00	0.00	0.000
5/27			0.00	0.00	0.000			0.00	0.00	0.000
5/28			0.00	0.00	0.000			0.00	0.00	0.000
5/29			0.00	0.00	0.000			0.00	0.00	0.000
5/30			0.00	0.00	0.000			0.00	0.00	0.000
5/31			0.00	0.00	0.000			0.00	0.00	0.000
6/01			0.00	0.00	0.000			0.00	0.00	0.000
6/02			0.00	0.00	0.000			0.00	0.00	0.000
6/03			0.00	0.00	0.000			0.00	0.00	0.000
6/04			0.00	0.00	0.000			0.00	0.00	0.000
6/05			0.00	0.00	0.000			0.00	0.00	0.000
6/06			0.00	0.00	0.000			0.00	0.00	0.000
6/07			0.00	0.00	0.000			0.00	0.00	0.000
6/08			0.00	0.00	0.000			0.00	0.00	0.000
6/09			0.00	0.00	0.000			0.00	0.00	0.000
6/10			0.00	0.00	0.000			0.00	0.00	0.000
6/11			0.00	0.00	0.000			0.00	0.00	0.000
6/12			0.00	0.00	0.000			0.00	0.00	0.000
6/13			0.00	0.00	0.000			0.00	0.00	0.000
6/14			0.00	0.00	0.000			0.00	0.00	0.000
6/15			0.00	0.00	0.000			0.00	0.00	0.000
6/16			0.00	0.00	0.000			0.00	0.00	0.000
6/17			0.00	0.00	0.000			0.00	0.00	0.000
6/18			0.00	0.00	0.000			0.00	0.00	0.000
6/19			0.00	0.00	0.000			0.00	0.00	0.000
6/20			0.00	0.00	0.000			0.00	0.00	0.000
6/21			0.00	0.00	0.000			0.00	0.00	0.000
6/22			0.00	0.00	0.000			0.00	0.00	0.000
6/23			0.00	0.00	0.000			0.00	0.00	0.000
6/24			0.00	0.00	0.000			0.00	0.00	0.000
6/25	24.2	1	0.21	0.21	0.024			0.00	0.00	0.000
6/26			0.00	0.21	0.248	23.0	1	0.22	0.22	0.006
6/27	24.5	4	0.82	0.51	0.122	24.5	0	0.00	0.11	0.006
6/28			0.00	0.51	0.122	23.7	0	0.00	0.07	0.006
6/29	24.4	6	1.23	0.75	0.268	24.1	2	0.41	0.16	0.018
6/30			0.00	0.75	0.268	23.7	18	3.80	0.88	0.123
7/01			0.00	0.75	0.268	9.8	8	4.08	1.13	0.170
7/02	23.8	7	1.47	0.93	0.439	7.0	10	7.14	1.44	0.228
7/03			0.00	0.93	0.439	24.0	13	2.71	1.63	0.304
7/04	24.0	9	1.88	1.12	0.659	23.8	14	2.94	1.80	0.386
7/05			0.00	1.12	0.659	23.9	9	1.88	1.81	0.439
7/06	24.1	13	2.70	1.38	0.976	9.2	2	1.09	1.78	0.450
7/07			0.00	1.38	0.976			0.00	1.78	0.450
7/08	24.1	1	0.21	1.21	1.000	23.2	22	4.74	2.06	0.579
7/09			0.00	1.21	1.000	24.1	14	2.90	2.14	0.661
7/10			0.00	1.21	1.000	23.9	13	0.00	2.19	0.737
7/11	23.9	0	0.00	1.06	1.000	24.1	5	1.04	2.10	0.766
7/12			0.00	1.06	1.000	24.4	5	1.02	2.02	0.795
7/13	24.1	0	0.00	0.94	1.000	8.6	1	0.58	1.99	0.801
7/14			0.00	0.94	1.000			0.00	1.99	0.801
7/15			0.00	0.94	1.000	24.3	7	1.44	1.95	0.842
7/16	24.0	0	0.00	0.85	1.000	23.9	8	1.67	1.93	0.889
7/17			0.00	0.85	1.000	24.3	5	1.03	1.88	0.918
7/18			0.00	0.85	1.000	33.8	3	0.44	1.77	0.936
7/19			0.00	0.85	1.000	24.1	4	0.83	1.72	0.959
7/20			0.00	0.85	1.000			0.00	1.72	0.959
7/21			0.00	0.85	1.000			0.00	1.72	0.959
7/22			0.00	0.85	1.000	24.2	3	0.62	1.67	0.977
7/23			0.00	0.85	1.000	24.9	1	0.20	1.60	0.982
7/24			0.00	0.85	1.000	23.1	2	0.43	1.55	0.994
7/25			0.00	0.85	1.000	23.7	0	0.00	1.49	0.994
7/26						24.6	1	0.20	1.43	1.000
			241.1	41.0	8.56			595.9	171.0	41.4
			Mean day of catch	7/03				Mean day of catch	7/08	

Appendix Table 2. Unalakleet test net, 1985-1981 (continued).

coho salmon catch, 1984						coho salmon catch, 1985					
Date	Hours	Catch	CPUE	Cum.	Cum.	Date	Hours	Catch	CPUE	Cum.	Cum.
				CPUE	Prop				CPUE	CPUE	Prop
7/25			0.00	0.00	0.000				0.00	0.00	0.000
7/26			0.00	0.00	0.000				0.00	0.00	0.000
7/27			0.00	0.00	0.000				0.00	0.00	0.000
7/28			0.00	0.00	0.000				0.00	0.00	0.000
7/29			0.00	0.00	0.000				0.00	0.00	0.000
7/30	24.6	16	3.25	3.25	0.066				0.00	0.00	0.000
7/31	2.7	2	3.70	3.30	0.074				0.00	0.00	0.000
8/01	23.3	26	5.58	4.35	0.180				0.00	0.00	0.000
8/02			0.00	4.35	0.180				0.00	0.00	0.000
8/03	4.6	16	17.39	5.43	0.246	10.7	2	0.93	0.93	0.011	
8/04			0.00	5.43	0.246			0.00	0.93	0.011	
8/05			0.00	5.43	0.246			0.63	0.72	0.029	
8/06	24.3	10	2.06	4.40	0.287	24.3	2	0.41	0.60	0.040	
8/07			0.00	4.40	0.287	24.0	4	0.83	0.66	0.063	
8/08	23.3	11	2.36	3.94	0.332	24.0	3	0.63	0.66	0.080	
8/09			0.00	3.94	0.332	24.0	2	0.42	0.61	0.091	
8/10	23.9	8	1.67	3.51	0.365	11.0	0	0.00	0.56	0.091	
8/11			0.00	3.51	0.365			0.00	0.56	0.091	
8/12			0.00	3.51	0.365	24.2	2	0.41	0.54	0.103	
8/13	24.0	5	1.04	3.12	0.385	24.0	1	0.21	0.50	0.109	
8/14	24.2	4	0.83	2.80	0.402	29.2	10	1.71	0.66	0.166	
8/15	23.8	5	1.05	2.59	0.422	19.5	7	1.79	0.75	0.206	
8/16			0.00	2.59	0.422	23.5	6	1.28	0.80	0.240	
8/17	25.0	6	1.20	2.44	0.447	11.6	6	2.59	0.88	0.274	
8/18			0.00	2.44	0.447			0.00	0.88	0.274	
8/19			0.00	2.44	0.447	24.1	26	5.39	1.24	0.423	
8/20	24.0	11	2.29	2.42	0.492	23.8	5	1.05	1.23	0.451	
8/21			0.00	2.42	0.492	24.8	14	2.82	1.34	0.531	
8/22	24.7	4	0.81	2.28	0.508	23.8	6	1.26	1.34	0.566	
8/23	23.2	6	1.29	2.20	0.533	23.7	8	1.69	1.36	0.611	
8/24	24.0	9	1.88	2.17	0.570	9.1	2	1.10	1.35	0.623	
8/25			0.00	2.17	0.570			0.00	1.35	0.623	
8/26			0.00	2.17	0.570	23.0	12	2.61	1.42	0.691	
8/27	23.0	6	1.30	2.12	0.594	24.2	4	0.83	1.39	0.714	
8/28	22.8	9	1.97	2.11	0.631	24.2	8	1.65	1.40	0.760	
8/29	25.3	11	2.17	2.11	0.676	23.7	5	1.05	1.38	0.789	
8/30	24.2	4	0.83	2.04	0.693	24.2	2	0.41	1.34	0.800	
8/31	30.7	7	1.14	1.97	0.721	23.5	0	0.00	1.28	0.800	
9/01			0.00	1.97	0.721			0.00	1.28	0.800	
9/02			0.00	1.97	0.721			0.00	1.28	0.800	
9/03	16.7	5	1.50	1.96	0.742	24.4	3	0.61	1.25	0.817	
9/04	23.0	6	1.30	1.93	0.766	23.6	2	0.42	1.22	0.829	
9/05	24.2	7	1.45	1.90	0.795	24.0	3	0.63	1.20	0.846	
9/06	24.2	9	1.86	1.90	0.832	24.1	6	1.24	1.20	0.880	
9/07	24.3	10	2.06	1.91	0.873	11.8	5	2.13	1.22	0.909	
9/08			0.00	1.91	0.873			0.00	1.22	0.909	
9/09			0.00	1.91	0.873	5.8	2	1.74	1.22	0.920	
9/10	23.5	5	1.06	1.87	0.893			0.00	1.22	0.920	
9/11	33.1	2	0.30	1.79	0.902			0.00	1.22	0.920	
9/12	22.0	3	0.68	1.75	0.914			0.00	1.22	0.920	
9/13	17.0	3	0.88	1.73	0.926	26.2	7	1.34	1.23	0.960	
9/14	23.7	1	0.21	1.68	0.930			0.00	1.23	0.960	
9/15			0.00	1.68	0.930			0.00	1.23	0.960	
9/16			0.00	1.68	0.930			0.00	1.23	0.960	
9/17	24.6	4	0.81	1.65	0.947			0.00	1.23	0.960	
9/18	24.4	4	0.82	1.62	0.963			0.00	1.23	0.960	
9/19			0.00	1.62	0.963	24.0	0	0.00	1.18	0.960	
9/20	23.8	7	1.47	1.61	0.992	24.2	4	0.83	1.17	0.983	
9/21	8.6	0	0.00	1.59	0.992	24.1	3	0.62	1.15	1.000	
9/22			0.00	1.59	0.992	9.8	0	0.00	1.14	1.000	
9/23			0.00	1.59	0.992			0.00	1.14	1.000	
9/24	23.6	2	0.42	1.56	1.000			0.00	1.14	1.000	
9/25	27.5	0	0.00	1.51	1.000			0.00	1.14	1.000	
9/26	20.3	0	0.00	1.47	1.000			0.00	1.14	1.000	
9/27	23.7	0	0.00	1.43	1.000			0.00	1.14	1.000	
9/28			0.00	1.43	1.000			0.00	1.14	1.000	
9/29			0.00	1.43	1.000			0.00	1.14	1.000	
9/30			0.00	1.43	1.000			0.00	1.14	1.000	

853.8 244 68.7
Mean day of catch 8/21767.8 175 41.3
Mean day of catch 8/24

Appendix Table 2. Unalakleet test net, 1985-1981.

coho salmon catch, 1981

coho salmon catch, 1982

coho salmon catch, 1983

Date	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop
7/25		0.00	0.00	0.000			0.00	0.00	0.000			0.00	0.00	0.000	
7/26		0.00	0.00	0.000			0.00	0.00	0.000			0.00	0.00	0.000	
7/27		0.00	0.00	0.000			0.00	0.00	0.000			0.00	0.00	0.000	
7/28		0.00	0.00	0.000			0.00	0.00	0.000			0.00	0.00	0.000	
7/29		0.00	0.00	0.000			0.00	0.00	0.000			0.00	0.00	0.000	
7/30	24.0	6	0.83	0.83	0.019		0.00	0.00	0.000			0.00	0.00	0.000	
7/31	24.0	6	0.83	0.83	0.039		0.00	0.00	0.000			0.00	0.00	0.000	
8/01	24.0	3	0.42	0.69	0.048	3.0	9	15.00	15.00	0.038		0.00	0.00	0.000	
8/02	24.0	0	0.00	0.52	0.048	4.4	3	3.41	8.11	0.051		0.00	0.00	0.000	
8/03	24.0	3	0.42	0.50	0.058			0.00	8.11	0.051		0.00	0.00	0.000	
8/04	24.0	0	0.00	0.42	0.058	13.2	8	3.03	4.85	0.085		0.00	0.00	0.000	
8/05	24.0	0	0.00	0.36	0.058	7.3	6	4.11	4.66	0.111	11.8	1	0.34	0.34	0.005
8/06	24.0	0	0.00	0.31	0.058			0.00	4.66	0.111		0.00	0.34	0.005	
8/07	24.0	3	0.42	0.32	0.068			0.00	4.66	0.111	12.8	4	1.25	0.81	0.027
8/08	24.0	0	0.00	0.29	0.068	12.6	9	3.57	4.32	0.149		0.00	0.81	0.027	
8/09	24.0	9	1.25	0.38	0.097	12.9	0	0.00	3.28	0.149	25.7	14	2.18	1.51	0.103
8/10	24.0	3	0.42	0.38	0.106			0.00	3.28	0.149	12.5	21	6.72	2.55	0.217
8/11	24.0	0	0.00	0.35	0.106	12.2	8	3.28	3.28	0.183		0.00	2.55	0.217	
8/12	24.0	3	0.42	0.36	0.116	12.5	17	6.80	3.84	0.255	1.3	0	0.00	2.50	0.217
8/13	24.0	3	0.42	0.36	0.126			0.00	3.84	0.255		0.00	2.50	0.217	
8/14	24.0	5	0.69	0.38	0.142			0.00	3.84	0.255	10.7	12	4.49	2.78	0.283
8/15	24.0	17	2.36	0.50	0.197	12.3	18	7.32	4.31	0.332		0.00	2.78	0.283	
8/16	24.0	36	5.00	0.75	0.313	12.2	5	2.05	4.04	0.353	12.2	2	0.66	2.48	0.293
8/17	24.0	27	3.75	0.91	0.400			0.00	4.04	0.353	12.3	6	1.95	2.42	0.326
8/18	24.0	21	2.92	1.01	0.468	12.0	5	2.08	3.84	0.374	11.8	1	0.34	2.20	0.332
8/19	24.0	20	2.78	1.09	0.532	12.2	1	0.41	3.51	0.379		0.00	2.20	0.332	
8/20	24.0	10	1.39	1.10	0.565			0.00	3.51	0.379		0.00	2.20	0.332	
8/21	24.0	17	2.36	1.16	0.619			0.00	3.51	0.379	11.2	6	2.14	2.19	0.364
8/22	24.0	10	1.39	1.17	0.652	12.2	6	2.46	3.42	0.404		0.00	2.19	0.364	
8/23	24.0	13	1.81	1.19	0.694	11.8	2	0.85	3.22	0.413	12.0	2	0.67	2.06	0.375
8/24	24.0	2	0.28	1.16	0.700			0.00	3.22	0.413	11.5	2	0.70	1.95	0.386
8/25	24.0	5	0.69	1.14	0.716	12.1	3	1.24	3.07	0.426		0.00	1.95	0.386	
8/26	24.0	13	1.81	1.17	0.758	12.2	0	0.00	2.86	0.426	11.5	5	1.74	1.93	0.413
8/27	24.0	5	0.69	1.15	0.774			0.00	2.86	0.426		0.00	1.93	0.413	
8/28	24.0	4	0.56	1.13	0.787			0.00	2.86	0.426	11.9	0	0.00	1.80	0.413
8/29	24.0	1	0.14	1.10	0.790	12.5	11	4.40	2.96	0.472		0.00	1.80	0.413	
8/30	24.0	0	0.00	1.06	0.790	11.3	5	2.21	2.92	0.494	11.9	4	1.34	1.77	0.435
8/31	24.0	3	0.42	1.04	0.800			0.00	2.92	0.494	11.7	1	0.34	1.68	0.440
9/01	24.0	2	0.28	1.02	0.806	12.2	6	2.46	2.89	0.519		0.00	1.68	0.440	
9/02	24.0	1	0.14	1.00	0.810	11.5	2	0.87	2.79	0.528	12.3	5	1.63	1.68	0.467
9/03	24.0	2	0.28	0.98	0.816			0.00	2.79	0.528		0.00	1.68	0.467	
9/04	24.0	3	0.42	0.96	0.826			0.00	2.79	0.528	47.9	15	1.25	1.60	0.549
9/05	24.0	6	0.83	0.96	0.845	11.6	8	3.45	2.82	0.562		0.00	1.60	0.549	
9/06	24.0	6	0.83	0.95	0.865	9.8	3	1.53	2.77	0.574	23.8	11	1.85	1.62	0.609
9/07	24.0	3	0.42	0.94	0.874			0.00	2.77	0.574	23.7	5	0.84	1.56	0.636
9/08	24.0	6	0.83	0.94	0.894	11.8	0	0.00	2.64	0.574	23.8	6	1.01	1.52	0.668
9/09	24.0	6	0.83	0.94	0.913			0.00	2.64	0.574	24.2	10	1.65	1.53	0.723
9/10	24.0	9	1.25	0.94	0.942	28.5	13	2.28	2.60	0.630	24.2	3	0.50	1.46	0.739
9/11	24.0	3	0.42	0.93	0.952	23.5	14	2.98	2.63	0.689	24.2	2	0.33	1.39	0.750
9/12	24.0	3	0.42	0.92	0.961	25.6	8	1.56	2.55	0.723	24.1	8	1.33	1.39	0.793
9/13	24.0	6	0.83	0.92	0.981	25.6	5	0.98	2.44	0.745		0.00	1.39	0.793	
9/14	24.0	0	0.00	0.90	0.981	21.3	6	1.41	2.38	0.770	22.7	14	2.47	1.44	0.870
9/15	24.0	0	0.00	0.88	0.981	26.7	7	1.31	2.31	0.800	24.2	9	1.49	1.44	0.918
9/16	24.0	3	0.42	0.87	0.990	22.2	5	1.13	2.25	0.821	21.0	3	0.57	1.41	0.935
9/17	24.0	0	0.00	0.85	0.990	24.8	10	2.02	2.24	0.864	23.9	2	0.33	1.36	0.946
9/18	24.0	0	0.00	0.84	0.990	22.1	15	3.39	2.29	0.928	23.0	2	0.35	1.31	0.957
9/19	24.0	0	0.00	0.82	0.990	30.2	4	0.66	2.19	0.945		0.00	1.31	0.957	
9/20	24.0	3	0.42	0.81	1.000	19.1	0	0.00	2.11	0.945	48.9	4	0.33	1.23	0.978
9/21		0.00	0.81	1.000		26.2	4	0.76	2.05	0.962	24.0	3	0.50	1.20	0.995
9/22		0.00	0.81	1.000		27.6	6	1.09	2.00	0.987	24.2	0	0.00	1.16	0.995
9/23		0.00	0.81	1.000		20.2	2	0.50	1.95	0.996	23.4	1	0.17	1.12	1.000
9/24		0.00	0.81	1.000		23.8	1	0.21	1.89	1.000		0.00	1.12	1.000	
9/25		0.00	0.81	1.000				0.00	1.89	1.000		0.00	1.12	1.000	
9/26		0.00	0.81	1.000				0.00	1.89	1.000		0.00	1.12	1.000	
9/27		0.00	0.81	1.000				0.00	1.89	1.000		0.00	1.12	1.000	
9/28		0.00	0.81	1.000				0.00	1.89	1.000		0.00	1.12	1.000	
9/29		0.00	0.81	1.000				0.00	1.89	1.000		0.00	1.12	1.000	
9/30		0.00	0.81	1.000				0.00	1.89	1.000		0.00	1.12	1.000	

1272.0 310 43.06
Mean day of catch 8/22623.2 235 90.80
Mean day of catch 8/29656.3 184 41.44
Mean day of catch 8/30

Appendix Table 3. Unalakleet test net, 1981 - 1985.

pink salmon catch, 1981
counts begin the day the
tenth salmon was caught

pink salmon catch, 1982
counts begin the day the
tenth salmon was caught

pink salmon catch, 1983
counts begin the day the
tenth salmon was caught

Date	Hours	Catch	Cum. CPUE	CP(C)	Hours	Catch	Cum. CPUE	CP(C)	Hours	Catch	Cum. CPUE	Cum. CP(C)	
6/10		0.00	0.00	0.000			0.00	0.00			0.00	0.00	
6/11		0.00	0.00	0.000			0.00	0.00			0.00	0.00	
6/12		0.00	0.00	0.000			0.00	0.00			0.00	0.00	
6/13		0.00	0.00	0.000			0.00	0.00			0.00	0.00	
6/14		0.00	0.00	0.000			0.00	0.00			0.00	0.00	
6/15		0.00	0.00	0.000			0.00	0.00			0.00	0.00	
6/16		0.00	0.00	0.000			0.00	0.00			0.00	0.00	
6/17		0.00	0.00	0.000	24.0	13	2.71	2.71	0.015		0.00	0.00	
6/18		0.00	0.00	0.000			0.00	2.71	0.015		0.00	0.00	
6/19		0.00	0.00	0.000			0.00	2.71	0.015		0.00	0.00	
6/20		0.00	0.00	0.000	12.0	11	4.58	3.33	0.028		0.00	0.00	
6/21		0.00	0.00	0.000			0.00	3.33	0.028		0.00	0.00	
6/22		0.00	0.00	0.000	12.0	10	4.17	3.54	0.040		0.00	0.00	
6/23		0.00	0.00	0.000	12.0	13	5.42	3.92	0.055		0.00	0.00	
6/24		0.00	0.00	0.000			0.00	3.92	0.055		0.00	0.00	
6/25		0.00	0.00	0.000	11.9	36	15.13	5.77	0.098		0.00	0.00	
6/26		0.00	0.00	0.000			0.00	5.77	0.098		0.00	0.00	
6/27		0.00	0.00	0.000	12.1	37	15.29	7.14	0.141		0.00	0.00	
6/28		0.00	0.00	0.000			0.00	7.14	0.141		0.00	0.00	
6/29		0.00	0.00	0.000	12.2	24	9.84	7.48	0.169	11.5	8	2.78	
6/30		0.00	0.00	0.000	13.5	23	8.52	7.61	0.196		0.00	2.78	
7/01		0.00	0.00	0.000			0.00	7.61	0.196	11.9	19	6.39	
7/02		0.00	0.00	0.000	12.0	87	36.25	10.44	0.298		0.00	4.62	
7/03		0.00	0.00	0.000			0.00	10.44	0.298	11.9	6	0.160	
7/04		0.00	0.00	0.000	13.5	61	22.59	11.65	0.370		0.00	3.74	
7/05		0.00	0.00	0.000			0.00	11.65	0.370	11.9	15	5.04	
7/06		0.00	0.00	0.000	12.0	64	26.67	12.87	0.445		12.0	2	
7/07		0.00	0.00	0.000	5.5	63	57.27	14.47	0.519		0.00	3.38	
7/08		0.00	0.00	0.000			0.00	14.47	0.519	12.1	12	3.38	
7/09		0.00	0.00	0.000	9.0	12	6.67	14.04	0.533		0.00	0.367	
7/10		0.00	0.00	0.000			0.00	14.04	0.533	11.4	12	4.21	
7/11		0.00	0.00	0.000	6.5	12	9.23	13.85	0.548		0.00	3.58	
7/12		0.00	0.00	0.000			0.00	13.85	0.548	11.5	19	6.61	
7/13		0.00	0.00	0.000	12.2	49	20.08	14.27	0.605		5.17	4.08	
7/14		0.00	0.00	0.000	9.0	40	22.22	14.65	0.652		0.00	4.08	
7/15		0.00	0.00	0.000			0.00	14.65	0.652	11.7	13	4.12	
7/16		0.00	0.00	0.000	11.8	64	27.12	15.38	0.727		0.00	4.12	
7/17	24.0	20	8.33	8.33	0.056			0.00	15.38	0.727	11.8	10	3.39
7/18	24.0	20	8.33	8.33	0.111	12.0	80	33.33	16.39	0.821		0.00	4.05
7/19	24.0	23	9.58	8.75	0.175	12.0	53	22.08	16.70	0.884	11.8	9	3.05
7/20	24.0	15	6.25	8.13	0.217			0.00	16.70	0.884	11.5	8	3.67
7/21	24.0	51	21.25	10.75	0.358	11.8	49	20.76	16.90	0.941		0.00	3.67
7/22	24.0	55	22.92	12.78	0.511	24.5	37	7.55	16.02	0.985	12.2	19	6.23
7/23	24.0	28	11.67	12.62	0.589			0.00	16.02	0.985		0.00	3.86
7/24	24.0	17	7.08	11.93	0.636			0.00	16.02	0.985	11.5	2	0.70
7/25	24.0	22	9.17	11.62	0.697	12.6	8	3.17	15.43	0.994		0.00	3.65
7/26	24.0	14	5.83	11.04	0.736	2.5	1	2.00	15.31	0.995	12.0	3	1.00
7/27	24.0	12	5.00	10.49	0.769			0.00	15.31	0.995	11.7	2	0.68
7/28	24.0	5	2.08	9.79	0.783			0.00	15.31	0.995		0.00	3.32
7/29	24.0	9	3.75	9.33	0.808	4.6	2	2.17	15.10	0.998		0.00	3.14
7/30	24.0	8	3.33	8.90	0.831			0.00	15.10	0.998	11.7	8	0.34
7/31	24.0	10	4.17	8.58	0.858			0.00	15.10	0.998		0.00	2.58
8/01	24.0	4	1.67	8.15	0.869			0.00	15.10	0.998	11.6	8	0.00
8/02	24.0	4	1.67	7.77	0.881	4.4	0	0.00	14.86	0.998	12.1	0	0.00
8/03	24.0	6	2.50	7.48	0.897			0.00	14.86	0.998	12.2	0	0.00
8/04	24.0	4	1.67	7.17	0.908	13.2	1	0.38	14.22	0.999		0.00	2.68
8/05	24.0	2	0.83	6.85	0.914	7.3	0	0.00	13.88	0.999	11.8	1	0.00
8/06	24.0	10	4.17	6.73	0.942			0.00	13.88	0.999		0.00	2.58
8/07	24.0	12	5.00	6.65	0.975			0.00	13.88	0.999	12.8	0	0.00
8/08	24.0	1	0.42	6.38	0.978	12.6	0	0.00	13.34	0.999		0.00	2.45
8/09	24.0	1	0.42	6.13	0.981	12.9	0	0.00	12.82	0.999	25.7	0	0.00
8/10	24.0	2	0.83	5.92	0.986			0.00	12.82	0.999	12.5	0	0.00
8/11	24.0	2	0.83	5.72	0.992	12.2	0	0.00	12.36	0.999		0.00	2.15
8/12	24.0	3	1.25	5.56	1.000	12.5	0	0.00	11.93	0.999	1.3	0	0.00
8/13	24.0	0	0.00	5.36	1.000			0.00	11.93	0.999		0.00	2.14
8/14	24.0	0	0.00	5.17	1.000			0.00	11.93	0.999		0.00	0.988
8/15		0.00	5.17	1.000		12.3	1	0.41	11.54	1.000		0.00	2.08
8/16		0.00	5.17	1.000				0.00	11.54	1.000	12.2	1	0.33
8/17		0.00	5.17	1.000				0.00	11.54	1.000		0.00	2.02
8/18		0.00	5.17	1.000				0.00	11.54	1.000		0.00	2.02
8/19		0.00	5.17	1.000				0.00	11.54	1.000		0.00	2.02
8/20		0.00	5.17	1.000				0.00	11.54	1.000		0.00	2.02

696.0 360.0 150.0
Mean day of catch 7/25

368.6 851.0 385.6
Mean day of catch 7/09

334.6 169.0 57.4
Mean day of catch 7/12

Appendix Table 3. Unalakleet test net, 1985-1981 (continued).

pink salmon catch, 1984
counts begin the day the
tenth salmon was caught

pink salmon catch, 1985
counts begin the day the
first salmon was caught

Date	Hours	Catch	Cum. CPUE	CPUE	CP(C)	Hours	Catch	Cum. CPUE	CPUE	CP(C)
6/10		0.00	0.00	0.000			0.00	0.00	0.000	
6/11		0.00	0.00	0.000			0.00	0.00	0.000	
6/12		0.00	0.00	0.000			0.00	0.00	0.000	
6/13		0.00	0.00	0.000			0.00	0.00	0.000	
6/14		0.00	0.00	0.000			0.00	0.00	0.000	
6/15		0.00	0.00	0.000			0.00	0.00	0.000	
6/16		0.00	0.00	0.000			0.00	0.00	0.000	
6/17		0.00	0.00	0.000			0.00	0.00	0.000	
6/18		0.00	0.00	0.000			0.00	0.00	0.000	
6/19		0.00	0.00	0.000			0.00	0.00	0.000	
6/20		0.00	0.00	0.000			0.00	0.00	0.000	
6/21		0.00	0.00	0.000			0.00	0.00	0.000	
6/22	24.1	11	2.28	2.28	0.017			0.00	0.00	0.000
6/23		0.00	2.28	0.017			0.00	0.00	0.000	
6/24		0.00	2.28	0.017			0.00	0.00	0.000	
6/25	24.2	12	2.48	2.38	0.035			0.00	0.00	0.000
6/26		0.00	2.38	0.035			0.00	0.00	0.000	
6/27	24.5	29	5.92	3.57	0.079			0.00	0.00	0.000
6/28		0.00	3.57	0.079			0.00	0.00	0.000	
6/29	24.4	29	5.94	4.17	0.123	24.1	1	0.21	0.21	0.077
6/30		0.00	4.17	0.123		23.7	1	0.21	0.21	0.154
7/01		0.00	4.17	0.123		9.8	0	0.00	0.17	0.154
7/02	23.8	41	8.61	5.04	0.186	7.0	0	0.00	0.15	0.154
7/03		0.00	5.04	0.186		24.0	0	0.00	0.11	0.154
7/04	24.0	32	6.67	5.31	0.234	23.8	0	0.00	0.09	0.154
7/05		0.00	5.31	0.234		23.9	0	0.00	0.07	0.154
7/06	24.1	45	9.34	5.88	0.303	9.2	1	0.54	0.10	0.231
7/07		0.00	5.88	0.303			0.00	0.10	0.231	
7/08		0.00	5.88	0.303		23.2	1	0.22	0.12	0.308
7/09	24.1	61	12.66	6.73	0.396	24.1	0	0.00	0.10	0.308
7/10		0.00	6.73	0.396		23.9	0	0.00	0.09	0.308
7/11	23.9	81	16.95	7.85	0.519	24.1	0	0.00	0.08	0.308
7/12		0.00	7.85	0.519		24.4	0	0.00	0.08	0.308
7/13	24.1	97	20.12	9.08	0.667	8.6	0	0.00	0.07	0.308
7/14		0.00	9.08	0.667			0.00	0.07	0.308	
7/15		0.00	9.08	0.667		24.3	0	0.00	0.07	0.308
7/16	24.0	48	10.00	9.16	0.740	23.9	0	0.00	0.06	0.308
7/17		0.00	9.16	0.740		24.3	3	0.62	0.10	0.538
7/18	24.2	37	7.64	9.04	0.796	33.8	4	0.59	0.14	0.846
7/19		0.00	9.04	0.796		24.1	0	0.00	0.14	0.846
7/20	24.0	44	9.17	9.85	0.863			0.00	0.14	0.846
7/21		0.00	9.85	0.863			0.00	0.14	0.846	
7/22		0.00	9.05	0.863		24.2	1	0.21	0.14	0.923
7/23	23.5	49	10.43	9.14	0.938	24.9	0	0.00	0.13	0.923
7/24		0.00	9.14	0.938		23.1	1	0.22	0.14	1.000
7/25	23.9	12	2.51	8.70	0.956			0.00	0.14	1.000
7/26	24.0	15	3.13	8.35	0.979			0.00	0.14	1.000
7/27	24.1	9	1.87	7.97	0.992			0.00	0.14	1.000
7/28	11.4	0	0.00	7.76	0.992			0.00	0.14	1.000
7/29		0.00	7.76	0.992			0.00	0.14	1.000	
7/30	24.6	1	0.20	7.34	0.994			0.00	0.14	1.000
7/31	2.7	0	0.00	7.29	0.994			0.00	0.14	1.000
8/01	23.3	2	0.43	6.95	0.997			0.00	0.14	1.000
8/02		0.00	6.95	0.997			0.00	0.14	1.000	
8/03	4.6	0	0.00	6.89	0.997			0.00	0.14	1.000
8/04		0.00	6.89	0.997			0.00	0.14	1.000	
8/05		0.00	6.89	0.997			0.00	0.14	1.000	
8/06	24.3	0	0.00	6.55	0.997			0.00	0.14	1.000
8/07		0.00	6.55	0.997			0.00	0.14	1.000	
8/08	23.3	0	0.00	6.26	0.997			0.00	0.14	1.000
8/09		0.00	6.26	0.997			0.00	0.14	1.000	
8/10	23.9	0	0.00	5.99	0.997			0.00	0.14	1.000
8/11		0.00	5.99	0.997			0.00	0.14	1.000	
8/12		0.00	5.99	0.997			0.00	0.14	1.000	
8/13	24.0	2	0.42	5.75	1.000			0.00	0.14	1.000
8/14		0.00	5.75	1.000			0.00	0.14	1.000	
8/15		0.00	5.75	1.000			0.00	0.14	1.000	
8/16		0.00	5.75	1.000			0.00	0.14	1.000	
8/17		0.00	5.75	1.000			0.00	0.14	1.000	
8/18		0.00	5.75	1.000			0.00	0.14	1.000	
8/19		0.00	5.75	1.000			0.00	0.14	1.000	
8/20		0.00	5.75	1.000			0.00	0.14	1.000	

571.0 657.0 136.8
Mean day of catch 7/11

476.4 13.0 2.8
Mean day of catch 7/14

Appendix Table 4. Unalakleet test net, 1981 - 1985.

1296.0 1102 153.06
Mean day of catch 8/03

832.8 330 154.56
Mean day of catch 7/15

950.1 547 182.74
Mean day of catch 7/23

Appendix Table 4. Unalakleet test net, 1985-1981 (continued).

chum salmon catch, 1984
counts begin the day the
tenth salmon was caught

chum salmon catch, 1985
counts begin the day the
tenth salmon was caught

Date	Hours	Catch	CPUE	Cum.	CPUE	CP(C)	Hours	Catch	CPUE	Cum.	CPUE	CP(C)
6/01		0.00	0.00	0.000				0.00	0.00	0.000		
6/02		0.00	0.00	0.000				0.00	0.00	0.000		
6/03		0.00	0.00	0.000				0.00	0.00	0.000		
6/04		0.00	0.00	0.000				0.00	0.00	0.000		
6/05		0.00	0.00	0.000				0.00	0.00	0.000		
6/06		0.00	0.00	0.000				0.00	0.00	0.000		
6/07		0.00	0.00	0.000				0.00	0.00	0.000		
6/08		0.00	0.00	0.000				0.00	0.00	0.000		
6/09		0.00	0.00	0.000				0.00	0.00	0.000		
6/10		0.00	0.00	0.000				0.00	0.00	0.000		
6/11		0.00	0.00	0.000				0.00	0.00	0.000		
6/12		0.00	0.00	0.000				0.00	0.00	0.000		
6/13		0.00	0.00	0.000				0.00	0.00	0.000		
6/14		0.00	0.00	0.000				0.00	0.00	0.000		
6/15		0.00	0.00	0.000				0.00	0.00	0.000		
6/16		0.00	0.00	0.000				0.00	0.00	0.000		
6/17		0.00	0.00	0.000				0.00	0.00	0.000		
6/18		0.00	0.00	0.000				0.00	0.00	0.000		
6/19		0.00	0.00	0.000				0.00	0.00	0.000		
6/20		0.00	0.00	0.000				0.00	0.00	0.000		
6/21		0.00	0.00	0.000				0.00	0.00	0.000		
6/22		0.00	0.00	0.000				0.00	0.00	0.000		
6/23		0.00	0.00	0.000				0.00	0.00	0.000		
6/24		0.00	0.00	0.000			23.9	17	2.85	2.85	0.021	
6/25	24.2	17	3.51	3.51	0.027	25.3	22	3.48	3.17	0.048		
6/26		0.00	3.51	6.027		23.0	32	5.57	3.93	0.087		
6/27	24.5	29	5.92	4.72	0.073	24.5	22	3.59	3.85	0.114		
6/28		0.00	4.72	0.073		23.7	19	3.21	3.72	0.137		
6/29	24.4	27	5.53	4.99	0.117	24.1	29	4.81	3.98	0.172		
6/30		0.00	4.99	0.117		23.7	37	6.24	4.23	0.217		
7/01		0.00	4.99	0.117		9.8	20	8.16	4.45	0.242		
7/02	23.8	39	8.19	5.78	0.179	7.0	34	19.43	5.02	0.283		
7/03		0.00	5.78	0.179		24.0	38	6.33	5.17	0.330		
7/04	24.0	31	6.46	6.91	0.228	23.8	36	6.05	5.26	0.374		
7/05		0.00	5.91	0.228		23.9	19	3.18	5.06	0.397		
7/06	24.1	56	11.62	6.68	0.318	9.2	7	3.04	4.99	0.405		
7/07		0.00	6.68	0.318				0.00	4.99	0.405		
7/08		0.00	6.86	0.318		23.2	38	6.55	5.12	0.452		
7/09	24.1	58	10.37	7.36	0.398	24.1	58	9.63	5.47	0.523		
7/10		0.00	7.36	0.398		23.9	34	5.69	5.48	0.564		
7/11	23.9	29	6.07	7.20	0.444	24.1	38	6.31	5.54	0.611		
7/12		0.00	7.28	0.444		24.4	22	3.61	5.41	0.637		
7/13	24.1	26	5.39	7.00	0.486	8.6	9	4.19	5.39	0.648		
7/14		0.00	7.00	0.486				0.00	5.39	0.648		
7/15		0.00	7.00	0.486		24.3	25	4.12	5.31	0.679		
7/16	24.0	22	4.58	6.76	0.521	23.9	3	0.50	5.05	0.683		
7/17		0.00	6.76	0.521		24.3	11	1.81	4.89	0.696		
7/18	24.2	22	4.55	6.56	0.556	33.8	20	2.37	4.72	0.720		
7/19		0.00	6.56	0.556		24.1	8	1.33	4.56	0.730		
7/20	24.0	28	5.83	6.50	0.601			0.00	4.56	0.730		
7/21		0.00	6.50	0.601				0.00	4.56	0.730		
7/22		0.00	6.50	0.601		24.2	21	3.47	4.51	0.756		
7/23	23.5	15	3.19	6.25	0.625	24.9	13	2.09	4.41	0.772		
7/24		0.00	6.25	0.625		23.1	10	1.73	4.30	0.784		
7/25	23.9	6	1.26	5.90	0.634	23.7	19	3.21	4.26	0.807		
7/26	24.0	8	3.75	5.75	0.663	24.6	8	1.30	4.15	0.817		
7/27	24.1	16	3.32	5.60	0.693	7.4	1	0.54	4.11	0.818		
7/28	11.4	3	1.32	5.48	0.693			0.00	4.11	0.818		
7/29		0.00	5.48	0.693		23.8	22	3.70	4.09	0.845		
7/30	24.6	30	6.10	5.51	0.741	23.9	6	1.08	3.99	0.852		
7/31	2.7	0	0.00	5.48	0.741	23.8	7	1.18	3.90	0.861		
8/01	23.3	7	1.50	5.27	0.752	24.2	7	1.16	3.81	0.869		
8/02		0.00	5.27	0.752		24.3	3	0.49	3.70	0.873		
8/03	4.6	4	4.35	5.26	0.759	10.7	1	0.37	3.66	0.874		
8/04		0.00	5.26	0.759				0.00	3.66	0.874		
8/05		0.00	5.07	0.759		23.8	2	0.34	3.56	0.877		
8/06	24.3	7	1.44	5.07	0.770	24.3	1	0.16	3.46	0.878		
8/07		0.00	5.07	0.770		24.0	3	0.50	3.38	0.882		
8/08	23.3	11	2.36	4.94	0.788	24.0	9	1.50	3.33	0.893		
8/09		0.00	4.94	0.788		24.8	13	2.17	3.29	0.908		
8/10	23.9	6	1.26	4.77	0.797	11.8	5	1.82	3.28	0.915		
8/11		0.00	4.77	0.797				0.00	3.28	0.915		
8/12		0.00	4.77	0.797		24.2	9	1.49	3.23	0.926		
8/13	24.8	14	2.92	4.69	0.819	24.0	9	1.50	3.19	0.937		
8/14	24.2	12	2.48	4.60	0.839	29.2	8	1.10	3.13	0.946		
8/15	23.8	7	1.47	4.47	0.850	19.5	11	2.26	3.11	0.960		
8/16		0.00	4.47	0.850		23.5	11	1.87	3.08	0.973		
8/17	25.0	13	2.60	4.40	0.871	11.6	6	0.00	3.05	0.973		
8/18		0.00	4.40	0.871				0.00	3.05	0.973		
8/19		0.00	4.40	0.871		24.1	1	0.17	2.98	0.974		
8/20	24.0	7	1.46	4.29	0.882	23.8	5	0.84	2.94	0.980		
8/21		0.00	4.29	0.882		24.8	3	0.48	2.88	0.984		
8/22	24.7	5	1.81	4.17	0.890	23.8	2	0.34	2.83	0.987		
8/23	23.2	8	1.72	4.08	0.903	23.7	3	0.51	2.78	0.990		
8/24	24.0	7	1.46	4.08	0.914	9.1	0	0.00	2.76	0.990		
8/25		0.00	4.08	0.914				0.00	2.76	0.990		
8/26		0.00	4.00	0.914		23.0	4	0.70	2.72	0.995		
8/27	23.0	6	1.30	3.91	0.923	24.2	2	0.33	2.67	0.998		
8/28	22.8	7	1.54	3.84	0.935	24.2	0	0.00	2.62	0.998		
8/29	25.3	4	0.79	3.74	0.941	23.7	0	0.00	2.57	0.998		
8/30	24.2	3	0.62	3.65	0.946	24.2	0	0.00	2.52	0.998		
8/31	30.7	4	0.65	3.54	0.952	23.5	0	0.00	2.48	0.998		
9/01		0.00	3.54	0.952				0.00	2.48	0.998		
9/02		0.00	3.54	0.952				0.00	2.48	0.998		
9/03	16.7	5	1.58	3.50	0.960	24.3	0	0.00	2.43	0.998		
9/04	23.8	4	0.87	3.43	0.966	23.6	1	0.17	2.39	0.999		
9/05	24.2	6	1.24	3.37	0.976	24.0	0	0.00	2.35	0.999		
9/06	24.2	4	0.83	3.31	0.982	24.1	0	0.00	2.31	0.999		
9/07	24.3	3	0.62	3.24	0.987	11.8	1	0.34	2.30	1.000		
9/08		0.00	3.24	0.987				0.00	2.30	1.000		
9/09		0.00	3.24	0.987				0.00	2.30	1.000		
9/10	23.5	2	0.43	3.17	0.998			0.00	2.30	1.000		
9/11	33.1	1	0.15	3.07	0.992			0.00	2.30	1.000		
9/12	22.8	2	0.45	3.02	0.995			0.00	2.30	1.000		
9/13	17.0	1	0.29	2.97	0.997			0.00	2.30	1.000		
9/14	23.7	0	0.00	2.91	0.997			0.00	2.30	1.000		
9/15		0.00	2.91	0.997				0.00	2.30	1.000		
9/16		0.00	2.91	0.997				0.00	2.30	1.000		
9/17	24.6	1	0.20	2.85	0.998			0.00	2.30	1.000		
9/18	24.4	1	0.20	2.79	1.000			0.00	2.30	1.000		
9/19		0.00	2.79	1.000				0.00	2.30	1.000		
9/20		0.00	2.79	1.000				0.00	2.30	1.000		
9/21		0.00	2.79	1.000				0.00	2.30	1.000		
9/22		0.00	2.79	1.000				0.00	2.30	1.000		

1122.5 626 134.67

1426.3 819 160.84

Mean day of catch 7/22

Mean day of catch 7/09